

## ABSTRACT

An in-line fluid heater for heating fluid, such as dialysis fluid for use in dialysis therapy is provided. The fluid heater is a dual heater having a primary infrared heater and a secondary plate heater. A controller is operatively connected to the infrared  
5 heater and to the plate heater and operates one or both of the infrared heater and the plate heater to maintain a temperature of the fluid.